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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,720	12/26/2000	Byron J. Slater	00P9121US	4203

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER	
NGUYEN, DANNY	
ART UNIT	PAPER NUMBER
2836	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/748,720	SLATER ET AL.	
	Examiner	Art Unit	
	Danny Nguyen	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 24-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,25-32,34,35,37-38* is/are rejected.

7)☒ Claim(s) *24,33 and 36* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/14/2006 with respect to claims 1, 2, 4, 34, 37 have been considered but are moot in view of the new ground(s) of rejection.

The indicated allowability of claims 30, 31, 32 are withdrawn in view of the newly discovered reference(s) to Tai (USPN 5,603,306). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kitchens (USPN 4,845,580). Kitchens discloses a surge protection apparatus (such as protector circuit in figure 4A, 4B) connected between an AC electrical utility power line a load comprises a voltage input directly coupled to the AC electrical utility power line, the AC electrical utility power line having a nominal AC voltage of at least about 12 volts coupled between the voltage input and the load; an inductor (e.g. inductor L4) is coupled between the voltage input and the load, and a protective barrier (such as a housing) interposed between the inductor and the load, the protective barrier configured to physically isolate the inductor from the load (see col. 4, lines 15-30).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2-5, 25-29, 34, 35, 37, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitchens in view of Baiatu (USPN 6,094,129).

Regarding claim 2, Kitchens discloses a protection apparatus (figures 4a, 4b) connected between an AC electrical utility power line and a load comprises a voltage input coupled to the AC electrical utility power line, the AC electrical utility power line having a nominal AC voltage of at least about 120 volts, and a protective barrier (such as housing) interposed between the voltage input and the load, the protective barrier configured to physically isolate the PPTC from the load (see col. 4, lines 15-30). Kitchens does not disclose a PPTC as claimed. Baiatu discloses a current limiting device (figures 4,5) comprises a PPTC (15) is coupled in series with the inductor (30) to improve current limiting response (col. 6, lines 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the surge protection circuit of Kitchens to incorporate the PPTC as disclosed by Baiatu in order to improve current limiting.

Regarding claim 3, Kitchens discloses all limitations of claim 1 as discussed above, but does not teach the PPTC as claimed. Baiatu discloses a current limiting device (figures 4,5) comprises a PPTC (15) is coupled in series with the inductor (30) to improve current limiting response (col. 6, lines 5-20). It would have been obvious to one

of ordinary skill in the art at the time the invention was made to have modified the surge protection circuit of Kitchens to incorporate the PPTC as disclosed by Baiatu in order to improve current limiting.

Regarding claims 4, 5, 27-29, 34, 35, 37, 38, Kitchens discloses a protection apparatus (figures 4a, 4b) connected between an AC electrical utility power line and a load comprises a voltage input directly coupled to the AC electrical utility power line, an inductor (L4), a separate resistor (R6 see figure 4) coupled in series. Kitchens do not disclose a PPTC as claimed. Baiatu discloses a current limiting device (figures 4,5) comprises a PPTC (15) is coupled in series with the inductor (30) to improve current limiting response (col. 6, lines 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the surge protection circuit of Kitchens to incorporate the PPTC as disclosed by Baiatu in order to improve current limiting.

Regarding claims 25, 26, Kitchens discloses the resistor (r6) has a some resistance values, but does not disclose the resistor has a value as claimed. However, the specification contains no disclosure the resistor has a resistance value of approximately 50 ohms is critical. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select the resistance value of the resistor to any desired value as long as it compatible with the requirements of other elements in the circuit in order to properly current limit function of the protection circuit. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

4. Claims 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitchens in view of Tai (USPN 5,603,306). Kitchens discloses all limitations of claim 1 as discussed above, but does not disclose a protective sleeve as claimed. Tai discloses an interfering eliminating circuit comprises a protective sleeve (21) isolates the inductor (L) (see figures 1, 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the surge protection circuit of Kitchens to incorporate the protective sleeve as disclosed by Tai in order to prevent circuit being damage caused by the high voltage.

5. Claims 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitchens in view of Baiatu, and Gronowicz, Jr. et al (USPN 6,147,850). Kitchens and Baiatu disclose all limitations of claim 2 as discussed above, but do not disclose a protective sleeve as claimed. Gronowicz discloses an over-current protection circuit comprises a protective sleeve (such as sleeve 14) isolates the PPTC (28) (see figures 1, 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the surge protection circuit of Kitchens and Baiatu to incorporate the protective sleeve as disclosed by Gronowicz in order to prevent circuit being damage caused by the high voltage.

6. Claim 32 is rejected under 35 U.S.C. 102(b) as being anticipated by Kitchens (USPN 4,845,580). Kitchens discloses a surge protection apparatus (such as protector

circuit in figure 4A, 4B) connected between an AC electrical utility power line a load comprises a voltage input directly coupled to the AC electrical utility power line, the AC electrical utility power line having a nominal AC voltage of at least about 12 volts coupled between the voltage input and the load; an inductor (e.g. inductor L4) is coupled between the voltage input and the load, and a protective barrier (such as a housing) interposed between the inductor and the load, the protective barrier configured to physically isolate the inductor from the load (see col. 4, lines 15-30). Kitchens does not disclose a protective sleeve as claimed. Tai discloses an interfering eliminating circuit comprises a protective sleeve (21) isolates the inductor (L) (see figures 1, 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the surge protection circuit of Kitchens to incorporate the protective sleeve as disclosed by Tai in order to prevent circuit being damage caused by the high voltage.

Allowable Subject Matter

7. Claims 24, 33 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (571)-272-2054. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
3/22/2007

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